**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

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| Application No.: | 10/674,667 |
| Filing Date: | September 30, 2003 |
| Applicant: | Francis M. Creighton, IV |
| Group Art Unit: | 3737 |
| Examiner: | John Fernando Ramirez |
| Title: | Efficient magnet system for magnetically-assisted surgery |
| Attorney Docket: | 5236-000440/US |

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

**SUPPLEMENTAL APPEAL BRIEF**
**UNDER 37 C.F.R. § 41.37**

Sir:

A Notice of Appeal in this Application was filed on September 2, 2009, and an Appeal Brief was filed on January 25, 2010. In response to a February 22, 2010 Notice of Non-Compliant Brief, the Appellant respectfully submits this Supplemental Appeal Brief. The Appellant submits that the Appeal Brief fee was previously paid on September 2, 2009, but hereby authorizes the Commissioner to charge, if necessary, any fees required under 37 C.F.R. §1.17(f) to deposit account 08-0750.

## ***APPELLANT'S BRIEF ON APPEAL***

Pursuant to 37 C.F.R. § 41.37, Appellants submit their Brief on Appeal, as follows:

***REAL PARTY IN INTEREST – UNDER 37 C.F.R. § 41.37(c)(1)(i)***

The real party in interest in this appeal is Stereotaxis, Inc., a Delaware corporation, having a place of business at 4320 Forest Park Avenue, Suite 100, St. Louis, MO 63108, by virtue of an assignments recorded at Reel 011087, Frame 0917 and Reel 011087, Frame 0908.

***RELATED APPEALS & INTERFERENCES - UNDER 37 C.F.R. § 41.37(c)(1)(ii)***

To the best of Appellants' knowledge, no other appeals or interferences are pending which will directly affect, be directly affected by or have a bearing on the Board's decision in the present pending appeal.

***STATUS OF THE CLAIMS – UNDER 37 C.F.R. § 41.37(c)(1)(iii)***

On September 2, 2009, Appellants appealed from the rejection in the Final Office Action mailed June 2, 2009. Claims 39-41, 45-47 and 51-52 are pending and being appealed, and claims 1-38, 42-44, 48-50 and 53-57 have been cancelled.

A copy of the claims presently being appealed (Claims 39-41, 45-47 and 51-52) is provided in the attached Claims Appendix.

A copy of the June 2, 2009 Final Office Action placing claims 39-41, 45-47 and 51-52 in the application under rejection is provided in the attached Evidence appendix.

***STATUS OF AMENDMENTS – UNDER 37 C.F.R. § 41.37(c)(1)(iv)***

In response to a Final Office Action mailed June 2, 2009, a Notice of Appeal and Pre-Appeal Brief Request were filed on September 2, 2009. Subsequently, a Notice mailed November 24, 2009 maintained the rejection of claims 39-41, 45-47 and 51-52.

***SUMMARY OF CLAIMED SUBJECT MATTER – UNDER 37 C.F.R. § 41.37(c)(1)(v)***

Independent Claim 39

A compound magnet assembly having a front face and comprising a plurality of segments, the segments each magnetized to provide the maximum magnetic field direction at a selected operating point spaced from the front face of the compound magnet assembly.

With regard to independent claim 39, the present application states that the "magnet 500 has a front face 502" as shown in Fig's 9-13. (see p. 24, ll. 17) The application states that in the compound magnet of this invention, "the magnet 500 is divided into segments, and the proper magnetization direction is determined for each segment" (see p. 25, ll. 30-32), and teaches "determining the magnetization at the location of the center of mass that maximizes the magnetic field F at the operating point 506." (see p. 26, ll. 5-8; Fig. 17). The application states that the magnet provides a "magnetic field F in a selected direction at a selected operating point 506 spaced from the front face 502 of the magnet." (see p. 24, ll. 19-21; Fig. 17).

Independent Claim 41

A compound magnet assembly having a front and a back face and comprising a plurality of segments, the segments each magnetized to provide substantially the maximum magnetic field in a selected direction at a selected operating point spaced from the front face, the back face being substantially contoured to follow a surface of constant contribution to magnetic field in the selected direction at the operating point.

With regard to independent claim 41, the present application states that the "magnet 500 has a front face 502" as shown in Fig's 9-13. (see p. 24, ll. 17) The application states that in the compound magnet of this invention, "the magnet 500 is divided into segments, and the proper magnetization direction is determined for each segment" (see p. 25, ll. 30-32), and teaches "determining the magnetization at the

location of the center of mass that maximizes the magnetic field F at the operating point 506." (see p. 26, ll. 5-8; Fig. 17). The application states that the magnet provides a "magnetic field F in a selected direction at a selected operating point 506 spaced from the front face 502 of the magnet." (see p. 24, ll. 19-21; Fig. 17). The present application further states that "the desired shape of the magnet 500 has the flat front face 502...a curved back face 504, which generally conforms to the curve of constant field strength, and which also represents lines of constant contribution to the desired magnetic field F...the desired magnet shape is divided up into segments." (p. 26, ll. 25-32).

Independent Claim 45

A compound magnet assembly for applying a magnetic field in a selected direction at a selected operating point, the magnet assembly comprising a front face generally facing the operating point, and an at least approximately curved back face facing away from the operating point, the back face generally conforming to a constant contribution surface of the magnetic field in the selected direction.

With regard to independent claim 45, the present application states that the "magnet 500 has a front face 502" as shown in Fig's 9-13. (see p. 24, ll. 17) The application states that in the compound magnet of this invention, "the magnet 500 is divided into segments, and the proper magnetization direction is determined for each segment" (see p. 25, ll. 30-32), and teaches "determining the magnetization at the location of the center of mass that maximizes the magnetic field F at the operating point 506." (see p. 26, ll. 5-8; Fig. 17). The application states that the magnet provides a "magnetic field F in a selected direction at a selected operating point 506 spaced from the front face 502 of the magnet." (see p. 24, ll. 19-21; Fig. 17). The present application further states that "the desired shape of the magnet 500 has the flat front face 502...a curved back face 504, which generally conforms to the curve of constant field strength, and which also represents lines of constant contribution to the desired magnetic field F...the desired magnet shape is divided up into segments." (p. 26, ll. 25-32).

***GROUNDS FOR REJECTION TO BE REVIEWED ON APPEAL – UNDER 37 C.F.R. § 41.37(c)(1)(vi)***

Appellants present the following issues for review:

1. Is the invention set forth in claims 39-41, 45-47 and 51-52 anticipated under 35 U.S.C. § 102(b) by *Koike et al* (U.S. Pat. No. 3,971,963).

***ARGUMENT – UNDER 37 C.F.R. § 41.37(c)(1)(vii)***

***1st GROUND OF REJECTION ON APPEAL***

Pursuant to 37 C.F.R. § 41.37(c)(1)(vii), the following provides the contentions of appellants with respect to the 1st ground of rejection above presented for review in accordance with 37 C.F.R. § 41.37(c)(1)(vi).

Independent Claims 39, 41 and 45

Claims 39, 41 and 45 are not anticipated by *Koike et al* for the following reasons:

I. *Koike et al* fail to disclose all the claim limitations

Appellant respectfully submits that claims 39, 41 and 45 are not anticipated by *Koike*, because *Koike* fails to teach the required elements of a compound magnet assembly comprising segments magnetized to provide a magnetic field in a selected direction at an operating point spaced from the compound magnet assembly.

The Final Office Action states that the Applicant has argued *Kioke* does not disclose magnet segments arranged in a *parallel manner*. However, the Appellant argues that *Kioke* does not disclose the claimed compound magnet assembly, because *Kioke* uses separate magnets 62, 62' that are "isolated from each other," and separate magnets 66, 66' that are "isolated from each other," which provide magnetic fields within air gaps (64, 64', 68, 68') inside a stator, as disclosed in *Kioke*, col. 5, ll. 28-42, and shown in Figures 3-4 reproduced below.

FIG. 4

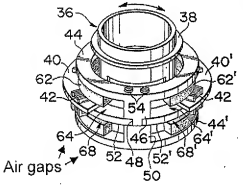
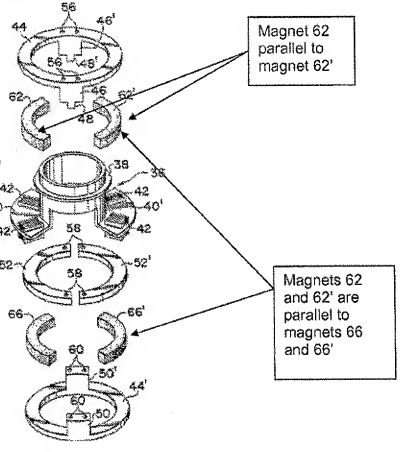



FIG. 3




Thus, *Kioke* does not disclose magnet segments arranged to form a compound magnet assembly, as interpreted consistent with the specification. The Federal Circuit has maintained that a term in a cited reference cannot reasonably be construed to describe a claimed limitation in a manner that is inconsistent with that disclosed in the specification. (*See In re Buszard*, 504 F.3d 1364, 84 U.S.P.Q.2d 1749 (2007)).

The Final Office Action further contends on page 4 that the features upon which Appellant relies (segments arranged in a parallel manner) are not recited in the claims, and that *Kioke* teaches a magnet assembly with a magnetic field at an operating point spaced from the magnet. However, the claim feature that Appellants are relying on, which is not taught in *Kioke*, is the structure of a compound magnet assembly shown below in Applicant's Fig's 10 and 13, which were depicted in the Final Office Action.

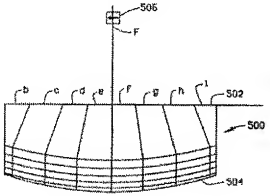



FIG. 10

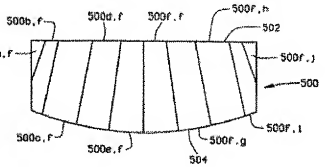



FIG. 13

Moreover, the claims require a compound magnet having segments that are magnetized to provide a magnetic field in a selected direction at a selected operating point (506) spaced from the front face of the compound magnet. Contrary to the claimed magnet, *Kioke* has separate magnets 62, 62' that generate one magnetic field in diametrically opposed air gaps (64, 64') inside *Kioke's* stator at a first location, and separate magnets (66, 66') that generate another magnetic field in diametrically opposed air gaps (68, 68') inside *Kioke's* stator at a second location. (*Kioke*, col. 5, ll. 33-45).

*Kioke's* separate magnets that generate magnetic fields in different air gaps inside of *Kioke's* stator assembly cannot be reasonably interpreted consistent with the Applicant's specification to read on a compound magnet assembly that generates a magnetic field at a select operating point spaced from the magnet, as explained below.

In an earlier April 19, 2007 Office Action rejection that was reversed by the Board of Patent Appeals,[1] the Board ruled a *Holcomb* reference disclosing (4) separate magnets providing magnetic fields in different locations did not anticipate a compound magnet assembly providing a magnetic field at an operating point spaced from the magnet.

Much like the Board's conclusion that *Holcomb's* (4) separate magnets could not define a compound magnet assembly providing a magnetic field at an operating point spaced from the magnet, *Kioke's* (4) separate magnets (62, 62', 66, 66') that establish fields in different gap locations inside *Kioke's* stator similarly can not define the claimed compound magnet assembly for providing a magnetic field at an operating point spaced from the magnet. Furthermore, *Kioke's* magnetic fields in separate air gap locations within the inside of a stator assembly cannot be reasonably interpreted to disclose the claimed field at an operating point spaced from the front face of the magnet, as interpreted consistent with Applicant's specification by one of ordinary skill in the art. This follows the reasoning in the Board's decision overturning the April 19, 2007 rejection, in which the Board concluded that one of ordinary skill in the art would not interpret the claimed compound magnet assembly that provides a field at an operating point spaced from the magnet as encompassing *Leupold's* cylindrical magnet 40 that produces a field within a cavity (17, 44).[2]

Much like the Board's determination that *Leupold's* field H within an internal magnet cavity (17, 44) was too constraining to be useful as an operating point, *Kioke's* (4) separated magnets (62, 62', 66, 66') that establish magnetic fields in airgaps inside *Kioke's* cylindrical structure (*Kioke*, col. 2, ll. 29-55), cannot be reasonably interpreted as a field at an operating point spaced from the front face of the magnet.

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[1] *See Ex parte Francis Creighton, Appeal 2008-4386, (Aug. 15, 2008), p. 9-11; US Pat. Appl. 10/674,667.*
[2] *Id. at 8-9.*

*Kioke's* (4) separated magnets (62, 62', 66, 66') that establish fields within airgaps inside *Kioke's* assembly can no more provide a field at the operating point spaced from the front face of the compound magnet assembly than *Leupold's* magnet could define a magnetic field spaced from *Leupold's* magnet. A person of ordinary skill in the art would not have reasonably construed *Kioke's* (4) separate magnets (62, 62', 66, 66') establishing fields in different airgaps inside of *Kioke's* assembly to read on the claimed field at an operating point spaced from the front face of the compound magnet assembly (as interpreted consistent with the specification). Thus, the Applicant submits that *Kioke's* separate magnets generating magnetic fields in airgaps within *Kioke's* device fails to disclose the claimed compound magnet assembly providing a field at an operating point spaced from the front face of the compound magnet assembly (or a compound magnet assembly applying magnetic field in a selected direction at a selected operating point where the magnet assembly comprises a front face generally facing the operating point, as in claim 45). Additionally, *Kioke's* separate magnets (62, 62', 66, 66') do not disclose the claimed feature in claims 41 and 45 of a surface of constant contribution to the magnetic field in the selected direction at the operating point. As such, the Applicants submit that independent claims 39, 41, 45, and claims 40, 46-47 and 51-52 that ultimately depend from claims 39, 41, 45, are not anticipated.

***CONCLUSION***

Appellants respectfully submit that the Examiner has not shown that claims 39-41, 45-47 and 51-52 are not anticipated by *Kioke et al.* (U.S. Pat. No. 3,971,963). Accordingly, reversal of the rejections of claims 39-41, 45-47 and 51-52 are respectfully requested.

Respectfully submitted,



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Date: February 25, 2010

***CLAIMS APPENDIX***
***UNDER 37 C.F.R. § 41.37(c)(1)(viii)***

1. – 38. (Cancelled)

39. (Previously Presented) A compound magnet assembly having a front face and comprising a plurality of segments, the segments each magnetized to provide the maximum magnetic field in a selected direction at a selected operating point spaced from the front face of the compound magnet assembly.

40. (Previously Presented) The compound magnet assembly according to claim 39 wherein each segment is magnetized in the direction of magnetization that, at the center of mass of the segment, provides the maximum contribution to the magnetic field in the selected direction at the selected point.

41. (Previously Presented) A compound magnet assembly having a front and a back face and comprising a plurality of segments, the segments each magnetized to provide substantially the maximum magnetic field in a selected direction at a selected operating point spaced from the front face, the back face being substantially contoured to follow a surface of constant contribution to magnetic field in the selected direction at the operating point.

42. – 44. (Cancelled)

45. (Previously Presented) A compound magnet assembly for applying a magnetic field in a select direction at a selected operating point, the magnet assembly comprising a front face generally facing the operating point, and an at least approximately curved back face facing away from the operating point, the back face generally conforming to a constant contribution surface of the magnetic field in the selected direction.

46. (Previously Presented) The compound magnet assembly according to claim 45 wherein the magnet assembly is divided into a plurality of segments that are assembled together to form a compound magnet assembly.

47. (Previously Presented) The compound magnet assembly according to claim 46, wherein each segment comprises a front face, generally facing the operating point, the back face generally facing away from the operating point, the back face generally conforming to a constant contribution surface of the magnetic field in the selected direction.

48. – 50. (Cancelled)

51. (Previously Presented) The compound magnet assembly according to claim 47 wherein each segment is magnetized in the direction of magnetization that, at the center of mass of the segment, provides the maximum contribution to the magnetic field in the selected direction at the selected operating point.

52. (Previously Presented) The compound magnet assembly according to claim 46 wherein each segment is magnetized in the direction of magnetization that, at the center of mass of the segment, provides the maximum contribution to the magnetic field in the selected direction at the selected point.

53.-57. (Cancelled)

***EVIDENCE APPENDIX UNDER 37 C.F.R. § 41.37(c)(1)(ix)***

A copy of the Final Office Action mailed June 2, 2009 placing the present application under final rejection is provided.

***RELATED PROCEEDINGS APPENDIX - UNDER 37 C.F.R. § 41.37(c)(1)(x)***

NONE.

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